YAMAHA

TT-R230T
TT-R230TC
ASSEMBLY MANUAL

LIT-11666-18-40 1C6-F8107-10

FOREWORD

This Assembly Manual contains the information required for the correct assembly of this Yamaha motorcycle prior to delivery to the customer. Since some external parts of the motorcycle have been removed at the Yamaha factory for the convenience of packing, assembly by the Yamaha dealer is required. It should be noted that the assembled motorcycle should be thoroughly cleaned, inspected, and adjusted prior to delivery to the customer.

NOTICE

The service specifications given in this assembly manual are based on the model as manufactured. Yamaha Motor Do Brasil Ltda is continually striving to improve all of its models. Modifications and significant changes in specifications or procedures will be forwarded to all authorized Yamaha dealers and will appear in future editions of this manual where applicable.
The procedures below are described in the order that the procedures are carried out correctly and completely. Failure to do so can result in poor performance and possible harm to the motorcycle and/or rider.

CONCERNING CRATE DAMAGE:
Follow the instructions in the Dealer Warranty Handbook, Procedure Section.

Particularly important information is distinguished in this manual by the following notations.

⚠
The Safety Alert Symbol means ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!

⚠ WARNING:
Failure to follow WARNING instructions could result in severe injury or death to the motorcycle operator, a bystander, or a person checking or repairing the motorcycle.

CAUTION:
A CAUTION indicates special precautions that must be taken to avoid damage to the motorcycle.

NOTE:
A NOTE provides key information to make procedures easier or clearer.

SYMBOLS USED IN THE ASSEMBLY MANUAL

In order to simplify descriptions in this assembly manual, the following symbols are used:

Coat with lithium-soap-base grease.

10 Tighten to 10 Nm.
(10 Nm = 1.0 m • kg = 7.2 ft • lb)

FWD Towards the front of the motorcycle.

Clearance required.

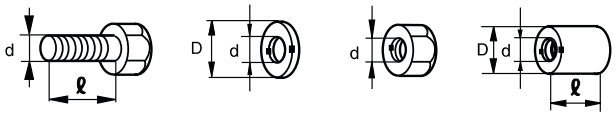
UP Install so that the arrow mark faces upward.

Apply motor oil.

Made of rubber or plastics

A	B	C	D	E

A: Ref No. (indicating the order of operations.)
B: Part name
C: Quantity of parts per machine.
D: Place where parts are held.
V: Stored in plastic bag.
C: Stored in carton box.
S: Fixed inside the steel frame, and/or contained in the Styrofoam tray (upper or lower).
*: Temporarily installed or secured.
E: Size or material of parts.
d/D:Diameter of part.
l: Length of part.



e.g., 5= 5mm (0.2 in)

TT-R230T / TT-R230TC
ASSEMBLY MANUAL
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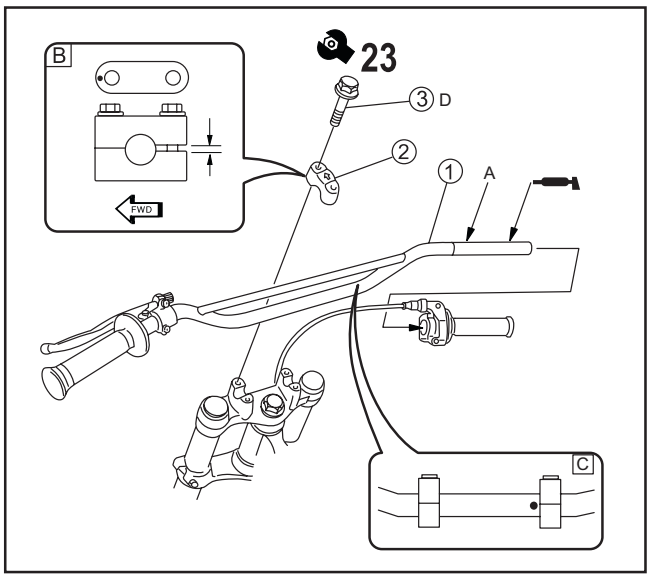
SETUP PROCEDURES

1. Handlebar



1	Handlebar	1	C	
2	Upper handlebar holder	2	V	
3	Flange bolt	4	V	d=8 (0.32), L= 35 (1.38)

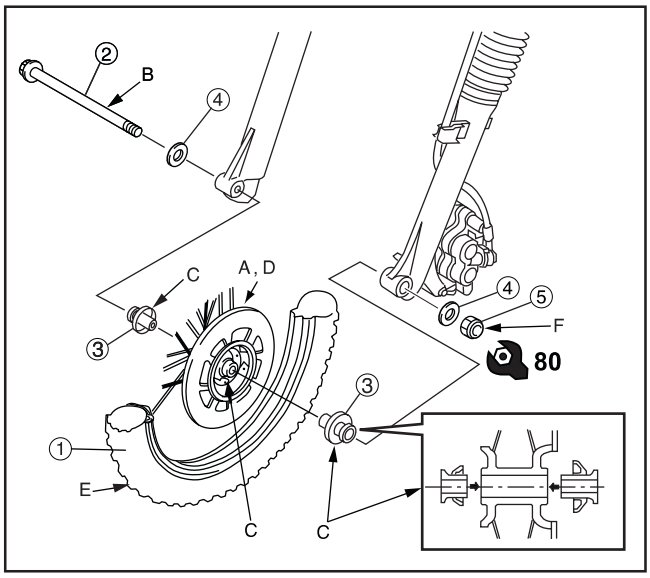
A: Clean the right handlebar end. Apply light coat grease
B: Install the handlebar holders with the arrow mark facing forward

CAUTION:
First tighten the bolts on the front side, and then tighten the bolts on the rear side.

C: Align the punch mark on the handlebar with the top of the lower handlebar holders.
D: Tighten the bolts to specification.

Tightening torque:
23 Nm (2.3 m.kg, 17 ft.lb)

2. Front wheel



1	Front wheel	1	S	
2	Wheel axle	1	*	
3	Collar	2	V	
4	Washer	2	*	
5	Axle nut	1	*	

A: Clean the brake disc.
B: Clean the front wheel axle.
C: Clean the collar.
D:

⚠ WARNING:
Take care not to get grease on the brake disc or inner surface of the brake pads. If you do so, clean using a rag dampened with a solvent. Foreign material on braking surface can cause impaired braking action

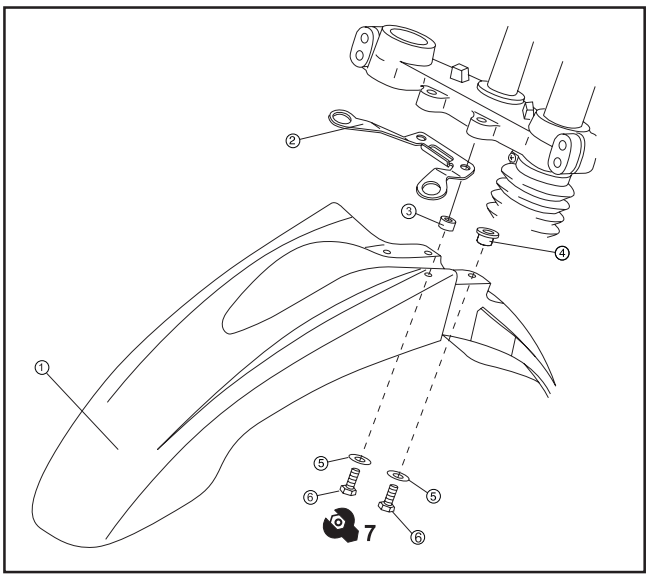
E: Lift the front wheel and install the front wheel axle.

NOTE:
Do not depress the brake lever when the caliper is off the brake disc.

F: Tighten the axle nut to specification.

Tightening torque:
80 Nm (8.0 m.kg, 58 ft.lb)

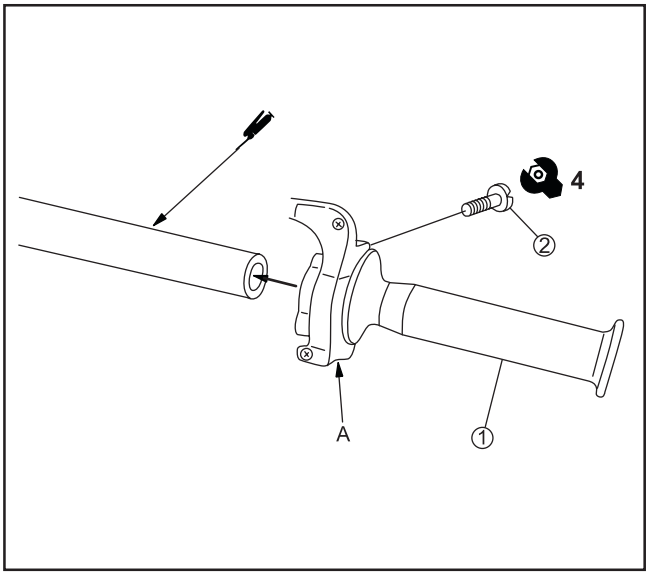
3. Front fender



1	Front fender	1	S	
2	Number plate holder	1	C	
3	Collar	2	V	d = 6
4	Collar	2	V	d=6 L=13,5(0,53)
5	Washer	2	V	d=6 (0,24)
6	Bolt	4	V	d=6 (0,24 L=30(1,2))

Tightening torque:
7 Nm (0.7 m.kg, 51 ft.lb)

4. Trottle grip



1	Trottle grip	1	*	
2	Panhead screw	2	*	d=5 (0,20 L=16 (0.63))

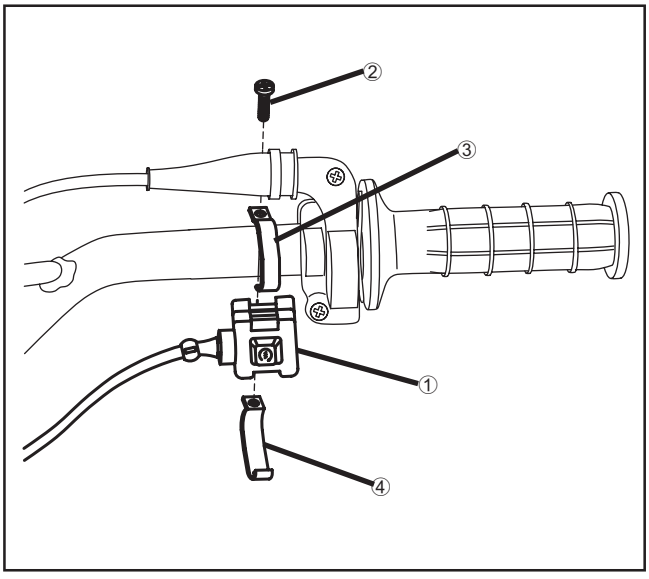
A: Check the throttle grip for smooth action.

⚠ WARNING:

Proper cable routing is essential to assure safe motorcycle operation. Refer to "CABLE ROUTING".

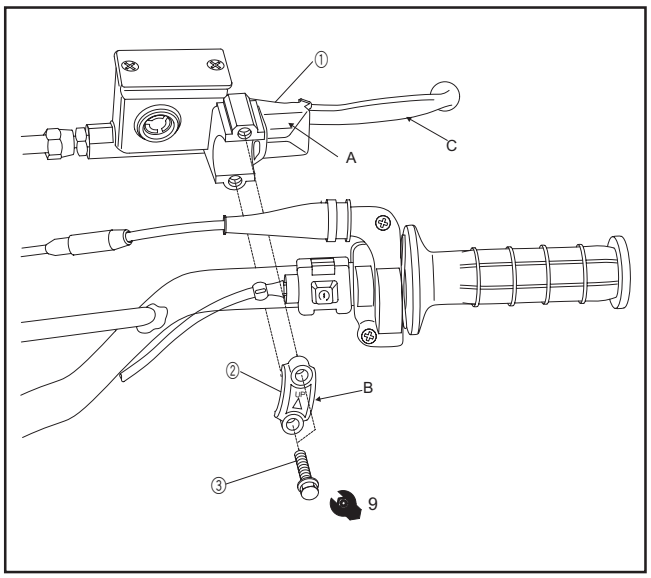
Tightening torque:
4 Nm (0.4 m.kg, 3,9 ft.lb)

5. Start switch



1	Start switch	1	S	
2	Panhead screw	1	V	d= 3 (0,12),L= 14 (0,55)
3	Start switch holder upper	1	V	
4	Start switch holder lower	1	V	

6. Master cylinder



1	Master cylinder	1	S	
2	Master cylinder bracket	1	*	
3	Bolt	2	*	d=6 (0,24) L=25 (0,98)

A: Lubricate the pivoting part of the brake lever.

Recommended lubricants:
Yamaha cable lube or motor oil

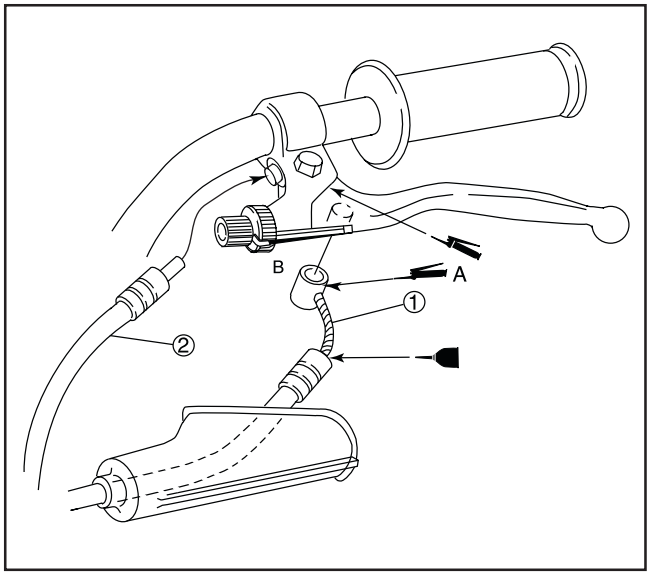
B: Make sure that the "UP" mark on the bracket is pointed upward.
C: Check the brake lever for smooth action.

Tightening torque:
9 Nm (0,9 m.kg, 6.5 ft.lb)

⚠ WARNING:

Proper hose routing is essential to assure safe machine operation.
Refer to "CABLE ROUTING".

7. Clutch cable



1	Clutch cable	1	*	
2	Clutch switch lead	1	S	

A: Lubricate the pivoting part of the clutch lever.

Recommended lubricants:
Yamaha cable lube or motor oil

B: To install the clutch cable, be sure to proceed as follows:
a.Turn in the adjuster on the lever holder until tight. Next, align the slit in the adjuster and cable socket with the slit in the lever holder.
b.Insert the cable end into the lever hole. Next, while pulling the outer cable in the direction opposite to the lever, seat the outer cable into the cable socket.

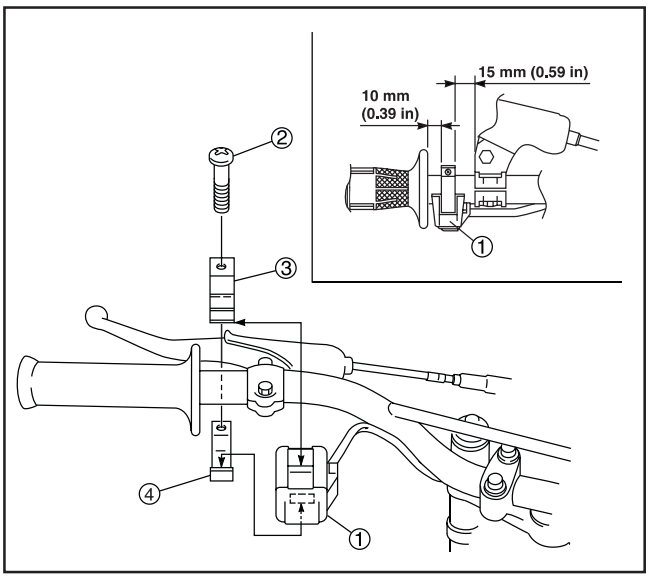
NOTE:

Check the clutch lever for smooth action.
Refer to "ADJUSTMENTS AND PREDELIVERY SERVICE".

⚠ WARNING:

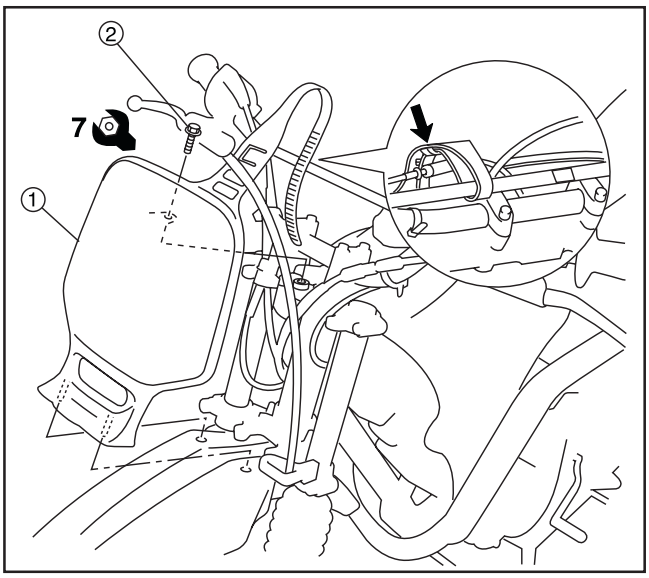
Proper cable routing is essential to assure safe motorcycle operation.
Refer to "CABLE ROUTING".

8. Engine stop switch



1	Engine stop switch	1	S	
2	Panhead screw	1	V	d=3 (0,12), l= 14 (0,55)
3	Engine stop switch holder upper	1	V	
4	Engine stop switch holder lower	1	V	

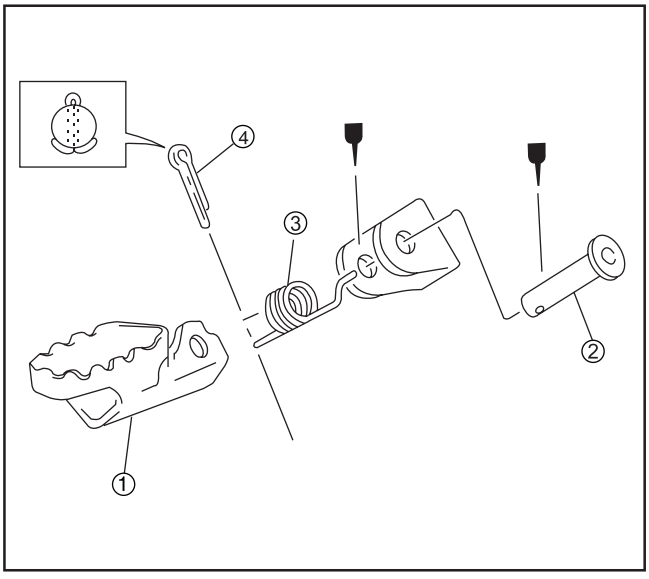
9. Number plate



1	Number plate	1	C	
2	Collar	1	V	
3	Bolt	1	V	d=6 (0,24 L=12 (0.47))

Tightening torque:
7 Nm (0.7 m.kg, 5,1 ft.lb)

10. Footrest



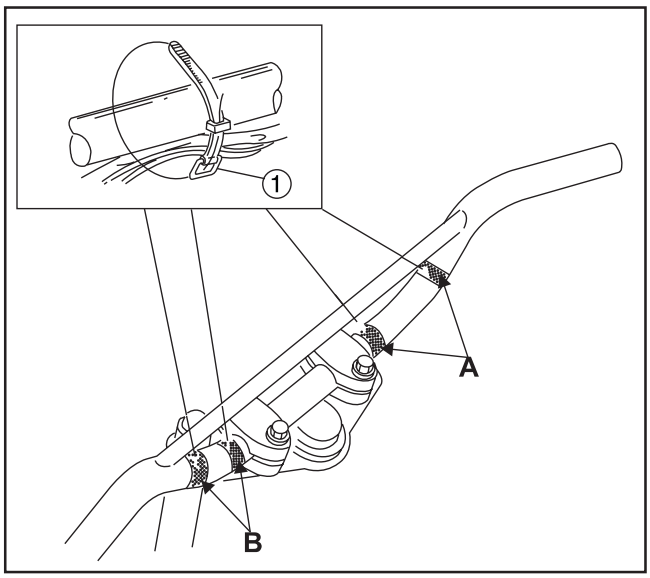
1	Footrest	2	C	
2	Clevis pin	2	V	
3	Return spring	2	V	
4	Cotter pin	2	V	

A: Insert one end of the return spring into the hole in the footrest and hook the other end onto the bracket.

B: Insert the cotter pin into the clevis pin and bend the end of cotter pin.

NOTE:
After installing a footrest, check that it operates smoothly.

11. Handlebar band

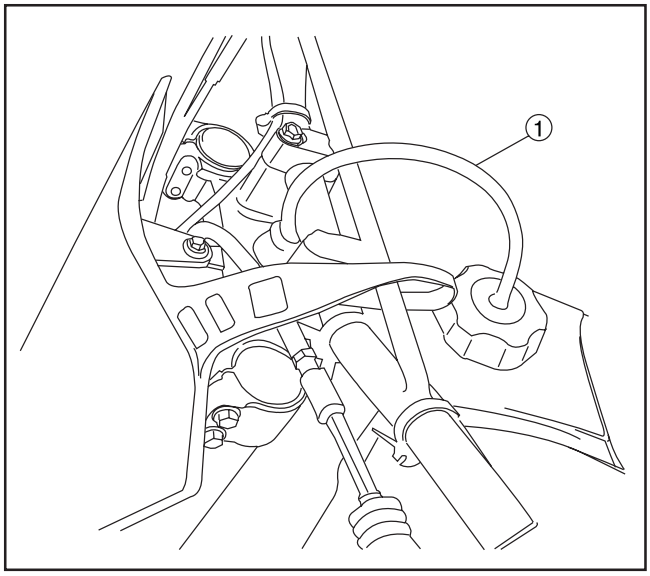


1	Band	4	V	

A: Clamp the start switch lead
B: Clamp the engine stop switch lead and clutch switch lead.

NOTE:
Refer to "CABLE ROUTING".

12. Fuel tank breather hose

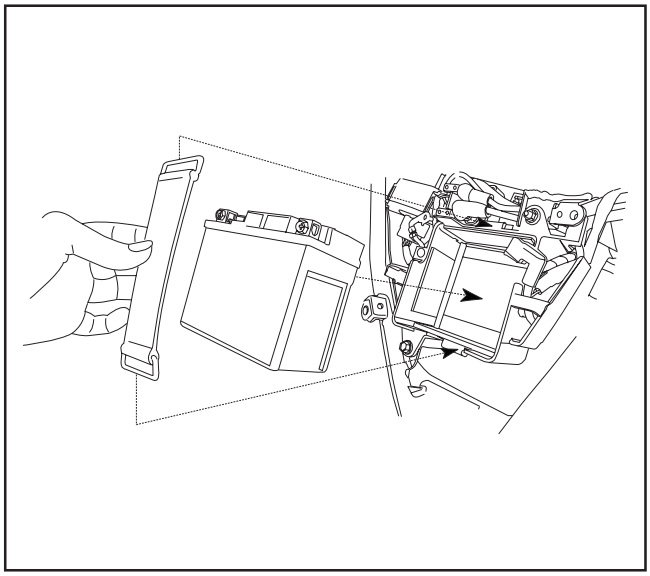


1	Fuel tank breather hose	1	C	

A: Connect one side of the fuel tank breather hose to the tank cap pipe and insert the other side to the stearing shaft cap.

NOTE:
Refer to "CABLE ROUTING".

13. Battery



1	Battery	1	C	
2	Band	1	C	

A: Installing the battery.

NOTE:
Refer to "ADJUSTMENTS AND PREDELIVERY SERVICE".

B: First, connect the positive lead (red lead) to the positive terminal.
C: Second, connect the negative lead (black lead) to the negative terminal.

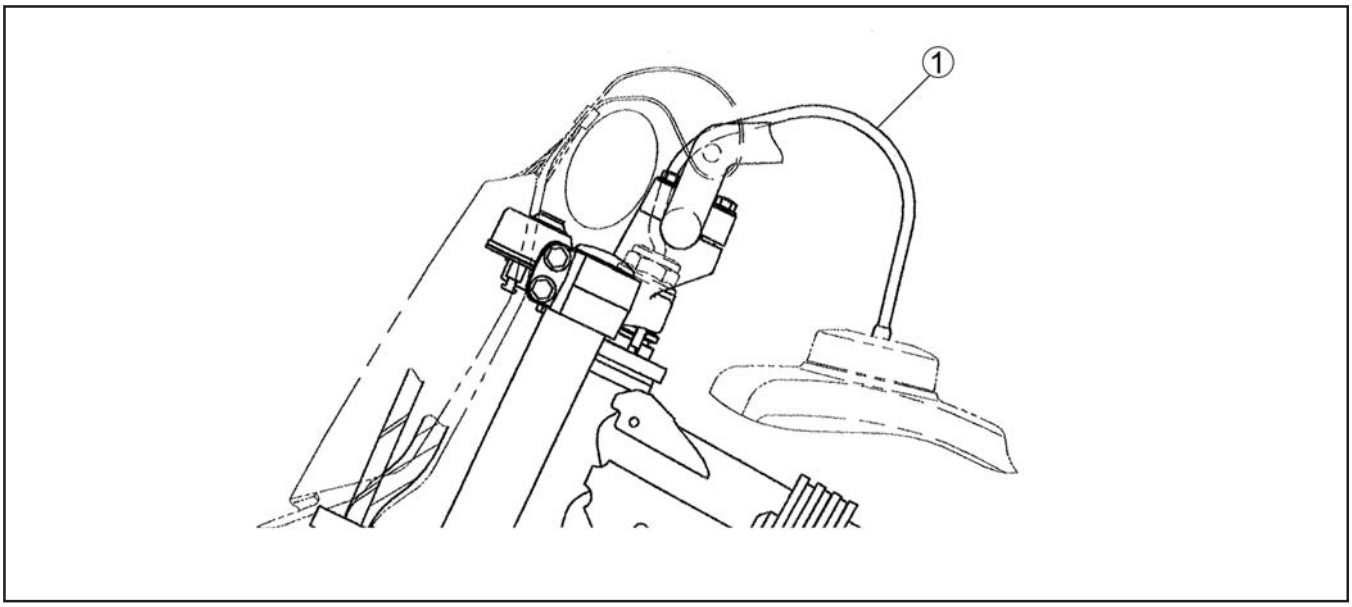
NOTE:
Refer to "CABLE ROUTING".

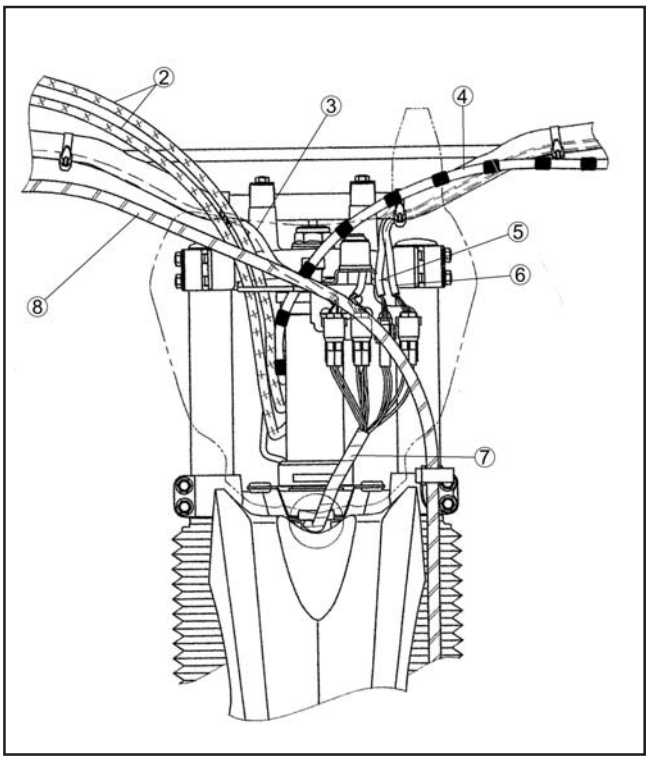
CABLE ROUTING

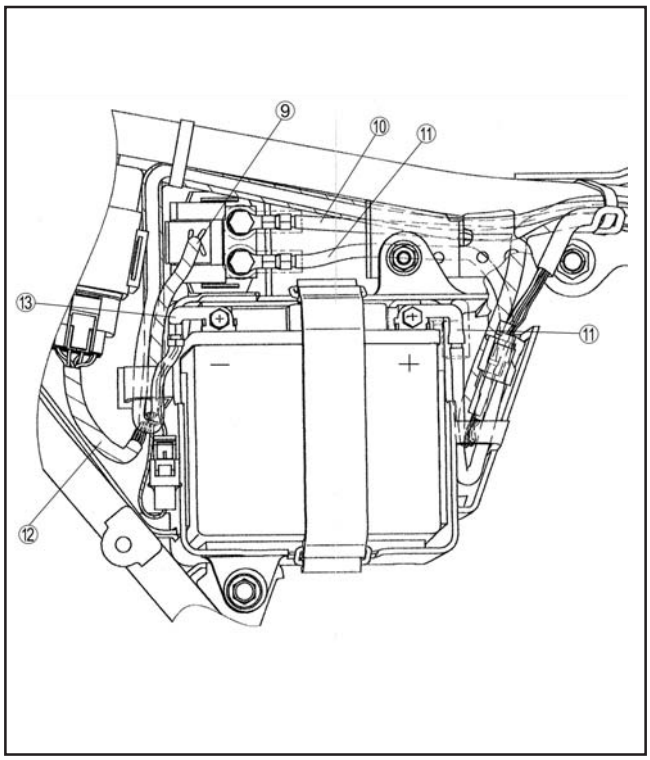
CAUTION:

Proper cable and lead routing is essential to ensure safe motorcycle operation.

① Fuel tank breather hose
② Throttle cable
③ Start switch lead
④ Clutch cable
⑤ Clutch switch lead
⑥ Engine stop switch lead
⑦ Main harness
⑧ Brake hose
⑨ Starter relay lead wire
⑩ Starter motor lead wire
⑪ Wire plus lead
⑫ CDI unit lead
⑬ Wire minus lead







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A. CHECKING AND CHARGING THE BATTERY

1. Fill:

CAUTION:

- Never remove the sealing sheet (aluminum seal) from the battery until the battery is filled with electrolyte.
- If battery plates are exposed to air, they will oxidize. As a result, power will not be generated as specified.
- Use only the amount of electrolyte in the container which comes with the battery.
- An incorrect electrolyte level has an adverse effect on battery performance.
- The quantity of electrolyte varies with the type of the electrolyte container.
- Avoid using any electrolyte other than specified. The specific gravity of the MF battery electrolyte is 1.320 (20ºC). (the specific gravity of the general type battery electrolyte is 1.280.) If the electrolyte whose specific gravity is less than 1.320, the sulfuric acid will decrease and thus low battery performance will result.
  Should any electrolyte, whose specific gravity is 1.320 or more, be used, the battery plates will corrode and battery life will shorten.

a. Place the battery on a level surface.
b. Remove the sealing shee
   Filler port
c. Take the electrolyte container out of the vinyl bag.
d. Detach the strip of caps (used as battery plugs).
   Six sealed areas of container

NOTE:

Do not lose the strip of caps because it will be used as battery plugs.

CAUTION:

Do not peel or pierce the sealed areas.

e. Turn the electrolyte container upside-down with the six sealed areas in line with the six filler ports of the battery.
f. Push the container down with enough force to break the seals. The electrolyte will start to flow into the battery.

CAUTION:

- Do not tilt the container as the electrolyte may stop flowing.
- Never remove the container from the battery until all electrolyte has drained from the container.

g. Leave the container in this position for 20 minutes or longer to allow proper chemical reaction.

NOTE:

- Make sure air bubbles are rising from all six filler ports.
- If air bubbles are not rising from a filler port, tap the top of the container a few times.

h. Make sure that all the electrolyte has been drained from the container.
i. Fit the strip of caps (battery plugs) securely into the filler ports. Make sure the top of the strip is flush with the top of the battery.
   Press down with equal force with both hands.

CAUTION:

- Never remove the strip of caps, nor add any water or electrolyte.

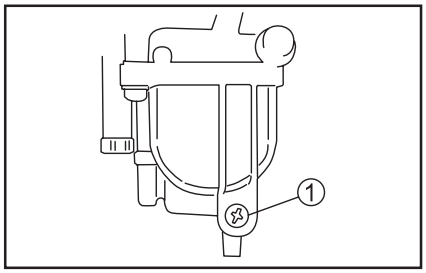
⚠ WARNING:

- Do not attempt boost charging under any circumstances.
- Battery electrolyte is poisonous and dangerous, causing severe burns, etc. It contains sulfuric acid. Avoid contact with skin, eyes or clothing.
  Antidote: External -Flush with water. Internal- Drink large quantities of water or milk. Follow with milk of magnesia, beaten egg, or vegetable oil. Call physician immediately.
  Eyes: Flush with water for 15 minutes and get prompt medical attention. Batteries produce explosive gases. Keep sparks, flames, cigarettes, etc., away. Ventilate when charging or using in enclosed space. Always shield eyes when working near batteries.
  KEEP OUT OF THE REACH OF CHILDREN.

2. Check:
   Using a digital volt meter, the state of a discharged MF battery can be checked by measuring open-circuit voltage (the voltage measured with the positive and negative terminals being disconnected).

CAUTION:

The battery must charged after it is filled with electrolyte. If this is not done, the life of the battery will be shortened drastically. Since the procedure for charging the battery is not explained in the assembly manual, refer to the service manual for more details.



B. DRAINING THE FUEL

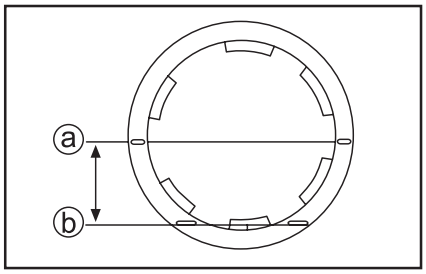
1. Turn the fuel cock to "OFF"
2. Put a rag under the carburetor drain hose so fuel does not contact the crankcase.
3. Loosen the drain screw (1) and drain the standing fuel.

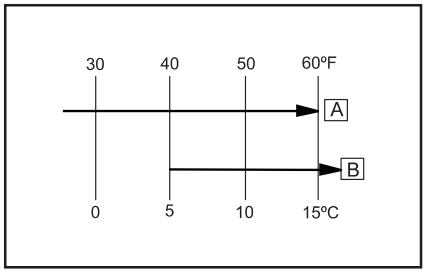
⚠ WARNING:

FUEL IS HIGHLY FLAMMABLE:

- Always turn off the engine when draining fuel. Take care not to spill any fuel on the engine or exhaust pipe(s)/muffler(s) when draining fuel.
- Never drain fuel while smoking or in the vicinity of an open flame.

4. Tighten the drain screw securely.





C. CHECKING THE ENGINE OIL LEVEL

1. Stand the motorcycle on a level surface.

NOTE:

- Place the motorcycle on a suitable stand.
- Make sure that the motorcycle is upright.

2. Check:
- engine oil level
  The engine oil level should be between the minimum level marks (a) and maximum level marks (b).
  Below the minimum level mark → Add the recommended engine oil to the proper level.

Recommended engine oil
YAMLUBE 4
At -10°C (10°F) or higher (A)
SAE 10W30 engine oil
At 5°C (40°F) or lower (B)
SAE 20W40 engine oil
Quantity
Without oil filter element replacement
1.0 L (1.1 Imp qt, 0,90 US qt)

CAUTION:

- Engine oil also lubricates the clutch and the wrong oil types or additives could cause clutch slippage. Therefore, do not add any chemical additives.
- Do not allow foreign materials to enter the crankcase.

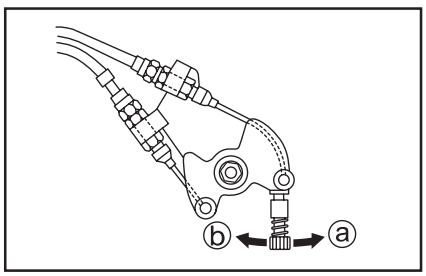
NOTE:

API Service "SE", "SF" and "SG" type or equivalent (e.g., "SF-SE", "SF-SE-CC", "SF-SE-SD")

3. Start the engine, warm it up for several minutes, and then turn it off.
4. Check the engine oil level again.

NOTE:

Before checking the engine oil level, wait a few minutes until the oil has settled.



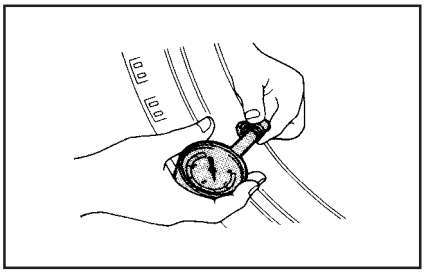
D. ADJUSTING THE ENGINE IDLING SPEED

1. Start the engine and let it warm up for several minutes.
2. Check:
   Engine idling speed by using a tachometer
   Out of specification → Adjust.

Engine idling speed
1.400 ~ 1.600 r/min

3. Adjust:
- Turn the throttle stop screw in direction (a) or (b) until the specified engine idling speed is obtained.

Direction (a)	Engine idling speed is increased.
Direction (b)	Engine idling speed is decreased.



E. MESURING THE TIRE PRESSURE

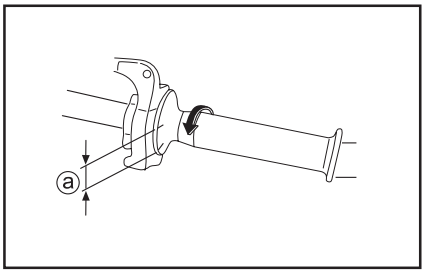
1. Measure:
• Tire pressure
Out of specification → Adjust.

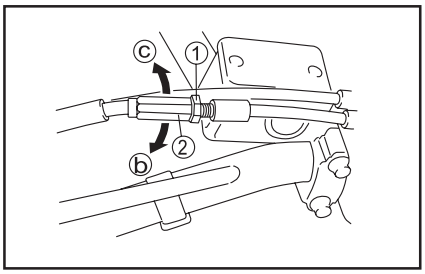
⚠ WARNING:

- The tire pressure should only be checked and regulated when the tire temperature equals the ambient air temperature.
- The tire pressure and the suspension must be adjusted according to the total weight (including cargo, rider, passenger, and accessories) and the anticipated riding speed.
- Operation of an overloaded motorcycle could cause tire damage, an accident, or an injury. NEVER OVERLOAD THE MOTORCYCLE.

Basic weight: With oil and full fuel tank 116.0 kg (256 lb) Maximum load* 90.0 kg (198 lb) Cold tire pressure Front Rear Off road riding 100 kPa (1.00 kgf/cm<SUP2>, 15 psi) 100 kPa (1.00 kgf/cm<SUP2>, 15 psi)

*Load is the total weight of cargo, rider, and accessories.





F. ADJUSTING THE THROTTLE CABLE FREE PLAY

NOTE:
Prior to adjusting throttle cable free play, the engine idling speed should be adjusted.

1. Measure:
• Throttle cable free play (a)
Out of specification → Adjust.

Throttle cable free play (at the flange of the throttle grip) 3 ~ 5 mm (0,12 ~ 0,20 in)

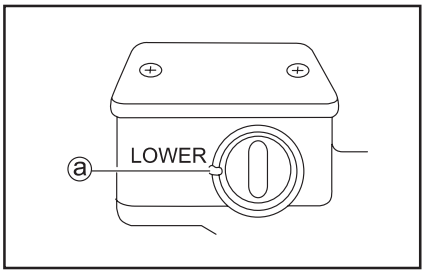
2. Adjust:
a. Loosen the locknut (1).
b. Turn the adjusting nut (2) in direction (a) or (b) until the specified throttle cable free play is obtained.

Direction (a)	Throttle cable free play is increased.
Direction (b)	Throttle cable free play is decreased.

c. Tighten the locknut.

⚠ WARNING:

After adjusting the throttle cable free play, turn the handlebar to the right and to the left to ensure that this does not cause the engine idling speed to change.



G. CHECKING THE BRAKE FLUID LEVEL

1. Stand the motorcycle on a level surface.

NOTE:
- Place the motorcycle on a suitable stand.
- Make sure that the motorcycle is upright.

2. Check:
• Brake fluid level
Below the minimum level mark (a) → Add the recommended brake fluid to the proper level.

Recommended brake fluid DOT 4

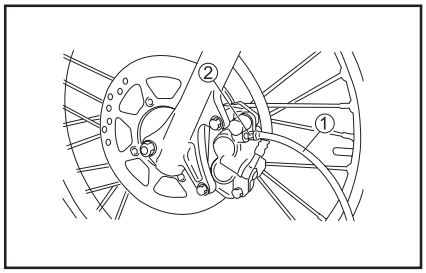
⚠ WARNING:

- Use only designated brake fluid. Other brake fluids may cause the rubber seals to deteriorate, causing leakage and poor brake performance.
- Refill with the same type of brake fluid that is already in the system. Mixing brake fluids may result in a harmful chemical reaction, leading to poor brake performance.
- When refilling, be careful that water does not enter the reservoir. Water will significantly lower the boiling point of the brake fluid and could cause vapor lock.

CAUTION:

Brake fluid may damage painted surfaces and plastic parts. Therefore, always clean up any split brake fluid immediately.

NOTE:
In order to ensure a correct reading of the brake fluid level, make sure that the top of the reservoir is level.



H. BLEEDING THE HYDRAULIC BRAKE SYSTEM

⚠ WARNING:

Bleed the hydraulic brake system whenever:
- the system was disassembled,
- a brake hose was loosened or removed,
- the brake fluid level is very low,
- brake operation is faulty.

A dangerous loss of braking performance may occur if the brake system is not properly bled.

NOTE:
- Be careful not to spill any brake fluid or allow the brake master cylinder reservoir to overflow.
- When bleeding the hydraulic brake system, make sure that there is always enough brake fluid before applying the brake. Ignoring this precaution could allow air to enter the hydraulic brake system, considerably lengthening the bleeding procedure.
- If bleeding is difficult, it may be necessary to let the brake fluid settle for a few hours. Repeat the bleeding procedure when the tiny bubbles in the hose have disappeared.

Air bleeding steps:

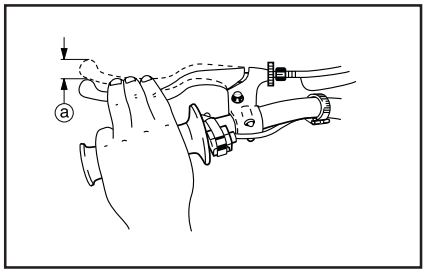
a. Add the recommended brake fluid to the proper level.
b. Install the brake master cylinder reservoir diaphragm.
c. Connect a clear plastic hose (1) tightly to the bleed screw (2).
d. Place the other end of the hose into a container.
e. Slowly squeeze the brake lever several times and release it.
f. Fully squeeze the brake lever and do not release it.
g. Loosen the bleed screw. This will release the tension and cause the brake lever to contact the throttle grip.
h. Tighten the bleed screw and then release the brake lever.
i. Repeat steps (e) to (h) until all of the air bubbles have disappeared from the brake fluid in the plastic hose.
j. Tighten the bleed screw to specification.

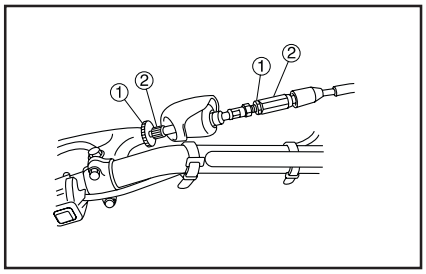
Bleed screw
6 Nm (0,6 m.kg, 4,3 ft.lb)

k. Fill the reservoir to the proper level.
Refer to "CHECKING THE BRAKE FLUID LEVEL".

⚠ WARNING:

After bleeding the hydraulic brake system, check the brake operation.





I. ADJUSTING THE CLUTCH CABLE FREE PLAY

1. Measure:
- Clutch cable free play (a)
Out of specification → Adjust.

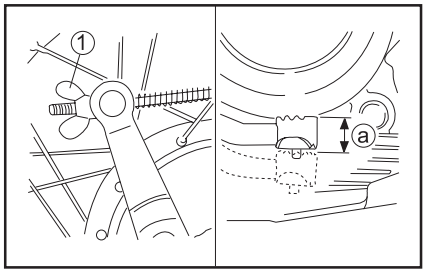
Clutch cable free play (at the pivot point of the clutch lever)
10 ~ 15 mm (0,39 ~ 0,59 in)

2. Adjust:
- Clutch cable free play

Handlebar side
a. Loosen the locknut (1).
b. Turn the adjusting bolt (2) in direction (a) or (b) until the specified clutch cable free play is obtained.

Direction (a)	Clutch cable free play is increased.
Direction (b)	Clutch cable free play is decreased.

c. Tighten the locknut.



J. ADJUSTING THE REAR BRAKE

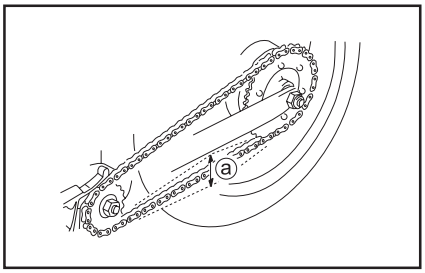
1. Measure:
- Brake pedal free play ⓐ
Out of specification → Adjust.

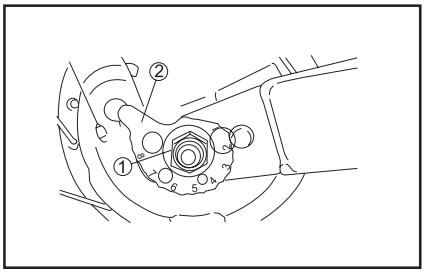
Free play
20 ~ 30 mm (0,8 ~1,2 in)

2. Adjust:
- Brake pedal free play
a. Loosen the locknuts ①.
b. Turn the locknuts until free play is within the specifiead limits by changing their tightenirig position.

CAUTION:

Make sure that there is no Brake drag after adjusting the brake pedal free play.





K. ADJUSTING THE DRIVE CHAIN SLACK

NOTE:
The drive chain slack must be checked at the tightest point on the chain.

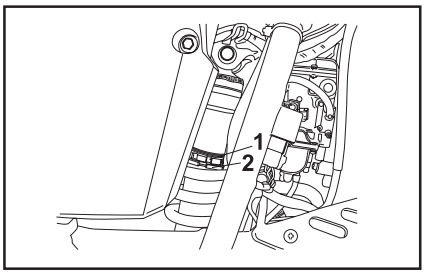
CAUTION:
A drive chain that is too tight will overload the engine and other vital parts, and one that is too loose can skip and damage the swingarm or cause an accident. Therefore, keep the drive chain slack within the specified limits.

1. Stand the motorcycle on a level surface.
2. Rotate the rear wheel several times and check the drive chain to locate its tightest point.
3. Measure:
• drive chain slack (a)
Out of specification → Adjust.

Drive chain slack
45 ~ 60 mm (1,77 ~ 2,36 in)

4. Adjust
a. Loosen the rear brake adjuster and the axle nut
b. Turn the adjusting plate in direction ⓐ or ⓑ until the specified drive chain slack is obtained
c. Tighten the wheel axle nut to specification

Tighteniny torque:
80 Nm (8.0 m.kg, 58 ft.lb)



L. ADJUSTING THE REAR SHOCK ABSORBER ASSEMBLY

⚠ WARNING:
Securely support the motorcycle so that there is no danger of it falling over.

Spring preload

CAUTION:
Never go beyond the maximum or minimum adjustment positions.

1. Adjust:
• Spring preload
a. Loosen the locknut
b. Turn the adjusting nut in direction ⓐ or ⓑ.

Direction (a)	Spring preload is increased (suspension is harder).
Direction (b)	Spring preload is decreased (suspension is softer).

Adjusting positions
Standard: 204 mm (8.0 in)
Minimum: 194 mm (7.6 in)
Maximum: 206 mm (8.1 in)

TIGHTENING TORQUE

Part to be tightened	Description	Qty	Tightening torque		
			Nm	m.kg	ft.lb
Engine					
Spark Plug	-	1	17.5	1.75	12.9
Plug, drain	-	1	43	4.3	31.7
Cover, Oil Element	Bolts	2	10	1	7.2
Drain Screw, Oil Element	Bolts	1	10	1	7.2
Spark Arrester	Bolt	3	10	1	7.2
Muffler and Frame	Bolt	2	40	4	29.5
Muffler and Exhaust	Bolt	1	16	1.6	11.8
Exhaust Protector	Bolt	3	7	0.7	5.1
Exhaust and Cylinder Head	Bolt	2	10	1	7.2
Frame					
Engine stay (front under) and frame	Nut self-locking	2	46	4.6	33.9
Engine stay (front under) and engine	Nut self-locking	2	46	4.6	33.9
Engine stay (font upper) and frame	Bolt	2	37.5	3.75	27.7
Engine stay (front upper) and engine	Nut self-locking	1	32.5	3.25	24
Engine (rear under) and frame	Nut self-locking	1	46	4.6	33.9
Protector, Engine	Bolt flange	3	54.5	5.45	40.2
Tensioner Chain - under	Bolt with washer	1	7	0.7	5.1
Tensioner - rear	Bolt, Flange	1	23	2,3	16.9
Connecting Rod and Frame	Nut	1	52.5	5.25	38.7
Connecting Rod and Arm Relay	Nut	1	52.5	5.25	38.7
Rear arm and Arm Relay	Bolt	1	52	5.2	38.3
Chain guide and Rear Arm	Bolt	2	7	0.7	5.1
Chain Protector and Rear Arm	Bolt	2	7	0.7	5.1
Engine and Rear Arm	Nut	1	80	8	59
Nipple, grease	Nipple	2	4	0.4	2.9
Arm Relay and rear suspension	Nut	1	34.5	3.45	25.5
Rear Suspension and Frame	Nut	1	34.5	3.45	25.5
Under bracket and Handle Crown	Nut	1	110	11	81.1
Hand Crown and Ring nut	Nut	1		SEE NOTE	
Handle under holder and handle crown	Bolt, Flange	2	23	2.3	16.9
Handle Crown and Inner tube	Bolt, Flange	2	20	2	14.7
Number plate	Bolt, Flange	1	7	0.7	5.1
Bracket and Handle Crown	Bolt, Flange	2	7	0.7	5.1
Hose brake clamp	Bolt	2	7	0.7	5.1
Cable Guide (Upper)	Bolt	2	20	2	14.7
Under bracket and Inner tube	Bolt, Flange	2	20	2	14.7
Base Valve and outer tube	Bolt	1	20	2	14.7
Front Wheel axle	Nut	1	80	8	59
Pedal, brake (shaft)	Axle	1	30	3	22.1
Shift pedal level	Bolt	1	7	0.7	5.1
Sidestand	Nut, self locker	1	43.5	4.35	32
Footrest	Bolt, Flange	2	47.5	4.75	35
Hose brake	Bolt	1	30	3	22.1
Bracket master cylinder	Bolt	2	7	0.7	5.1
Bleed screw	Screw	1	6	0.4	4.4
PIN PAD, Caliper Assy	Pin	2	18	1.8	13.2
Front brake disc and Wheel hub	Bolt, flange	6	13	1.3	9.5
Brake Caliper and front Fork	Bolt, flange	2	40	4	29.5
Front Fender	Bolt	4	7	0.7	5.1
Rear fender	Bolt	4	7	0.7	5.1
Flap Guar	Bolt	2	3	0.3	2.2
Rear Wheel	NUT self locking	1	80	8	59
Sprocket Driven and Rear Wheel	Bolt	6	34.5	3.45	25.5
Carburetor Joint	Bolt	2	10	1	7.2
Air Cleaner Case Cap	Screw, bind	4	25	2.5	18.4
Air Cleaner Case	Bolt, with washer	3	7	0.7	5.1
Bracket seat	Screw	1	7	0.7	5.1
Band, tank fitting	Screw	1	7	0.7	5.1
Fuel cock assy	Screw	2	7	0.7	5.1
Fuel tank and frame	Bolt	2	97.5	9.75	71.9
Scoop, air	Screw	2	7	0.7	5.1
Battery Box	Bolt	2	7	0.7	5.1
Starter Relay	Bolt, flange	2	7	0.7	5.1
Ignition Coil	Bolt, flange	2	97.5	9.75	71.9
Rectifier and regulator	Bolt, flange	1	7	0.7	5.1
Neutral switch	-	1	20	2	14

NOTE:

1. First tighten the ring nut approximately 43 Nm (4.3 m.kg, 31.7 ft.lb) by using the ring nut wrench and turn the steering right and left a few times; then loosen the ring nut 1/4 turn.
2. Retighten the ring nut 6.5 Nm (0.65 m.kg, 4.8 ft.lb)

APPENDICES

SERVICE DATA

TTR230T		
Engine idling speed:	1,400 ~ 1,600 r/min	
Spark plug: Type Gap	 DR8EA (NGK) 0.024 ~ 0.028 in (0,6 ~ 0,7 mm)	
Fuel: Recommended fuel Fuel tank capacity Total:	 Unleaded gasoline only 2,11 US gal (1,76 Imp gal, 8.0 L)	
Valve clearance (cold): IN EX	0.0020 ~ 0.0035 in (0,05 ~ 0,09 mm) 0.0060 ~ 0.0075 in (0,15 ~ 0,19 mm)	
Tire pressure	Front	Rear
Off-road riding	14.5 psi (1 kgf/cm², 100 kPa)	14.5 psi (1 kgf/cm², 100 kPa)

STANDARD EQUIPMENT

No.	Part name	Q'ty
1	Owner's manual	1

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